



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,174	07/25/2001	Jon Nash-Putnam	015471-0000 - B72625	6241
20594	7590	05/09/2005	EXAMINER	
AKIN GUMP STRAUSS HAUER & FELD, LLP P O BOX 688 DALLAS, TX 75313-0688			BAUM, RONALD	
			ART UNIT	PAPER NUMBER

2136

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/915,174

Applicant(s)

NASH-PUTNAM, JON

Examiner

Ronald Baum

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/5/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

1. Claims 1-20 are pending for examination.
2. Claims 1-20 are rejected.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Wolfgang et al, U.S. Patent 6,625,295 B1.
4. As per claim 1; "A system for the insertion of microthreads [watermark(s)] in transmitted data comprising:  
  
a digital content system providing carrier data [figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, whereas the watermark generation/insertion and original signal aspects, clearly encompasses the "...digital content ... carrier data ...", as broadly interpreted by the examiner];  
  
a microthread insertion system coupled to the digital content system, the microthread insertion system generating  
  
a composite data sequence that includes the carrier data and

microthread data; and

wherein the microthread data is camouflaged using the carrier data [figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, whereas the watermark generation/camouflaged via encryption (i.e., made visually imperceptible)/insertion and original signal aspects, clearly encompasses the "... microthread insertion ... carrier data ... camouflaged ... carrier data ...", as broadly interpreted by the examiner]."

5. Claim 2 *additionally recites* the limitation that; "The system of claim 1 wherein the microthread insertion system further comprises

a key encryption system encrypting the microthread data prior to forming the composite data sequence."

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 9, lines 51-col. 11, line 38, whereas the watermark generation/camouflaged via encryption (i.e., made visually imperceptible, and inclusive of the third party hash certificate functional aspects)/insertion and original signal aspects, clearly encompasses the "... key encryption ... microthread data ... composite data sequence ...", as broadly interpreted by the examiner.).

6. As per claim 7, this claim is the method claim for the apparatus/system claims 1,2 above, and is rejected for the same reasons provided for the claim 1,2 rejections, as such; "A method for inserting microthreads in transmitted data comprising:

Receiving

microthread data and  
carrier data;  
encrypting the microthread;  
camouflaging the encrypted microthread data using the carrier data; and  
forming a composite data sequence that includes  
the carrier data and  
the camouflaged microthread data.”

7. Claim 3 *additionally recites* the limitation that; “The system of claim 1 wherein the microthread insertion system further comprises

a camouflage system

receiving

the microthread data and

the carrier data and

performing a mathematical operation using

the microthread data and

the carrier data to generate camouflaged microthread data.”

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 9, lines 51-col. 11, line 38, whereas the watermark generation/camouflaged via encryption (i.e., made visually imperceptible, and inclusive of the third party hash certificate functional aspects, both aspects in of themselves constitute mathematical operations upon the microthread data and carrier

Art Unit: 2136

data)/insertion and original signal aspects, clearly encompasses the "... microthread insertion ... camouflage system ... microthread data ... carrier ... mathematical operation ... camouflaged microthread data", as broadly interpreted by the examiner.);

Further, as per claim 9, this claim is the method claim for the apparatus/system claim 3 above, and is rejected for the same reasons provided for the claim 3 rejection, as such; "The method of claim 7 wherein camouflaging the microthread data using the carrier data comprises

performing a mathematical operation using

the encrypted microthread data and

the carrier data."

8. Claim 4 ***additionally recites*** the limitation that; "The system of claim 1 wherein the microthread insertion system further comprises

a carrier length system

determining whether the carrier data is long enough to carry the microthread data

and

duplicating the carrier data [i.e., padding] if the carrier data is not long enough."

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 7, lines 4-col. 11, line 38, whereas the watermark generation/camouflaged via encryption (and hashing, etc.)/insertion (and associated original data content signal modification so as to accommodate the watermarking) and original signal aspects, clearly encompasses the "... microthread insertion ... carrier length ...

Art Unit: 2136

long enough ... duplicating ... data [i.e., padding] ... not long”, as broadly interpreted by the examiner.);

Further, as per claim 8, this claim is the method claim for the apparatus/system claim 4 above, and is rejected for the same reasons provided for the claim 4 rejection, as such; “The method of claim 7 wherein receiving the carrier data further comprises:

determining a length of the carrier data; and

duplicating the carrier data until the length of the duplicated carrier data is long enough to carry the microthread data.”

9. Claim 5 *additionally recites* the limitation that; “The system of claim 1 wherein the microthread insertion system further comprises

camouflaged microthread insertion system

receiving the microthread data and

inserting the microthread data into the carrier data at one or more locations.”

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 7, lines 4-col. 11, line 38, whereas the watermark generation/camouflaged via encryption (and hashing, etc.,)/insertion (and associated original data content signal modification, such as “[the] dividing the signal into portions, such as an array of pixels in an array into sub-arrays ... authentication of a portion of the signal ...”, so as to accommodate the watermarking) and original signal aspects, clearly encompasses the “... microthread insertion ... carrier data at one or more locations”, as broadly

Art Unit: 2136

interpreted by the examiner.);

Further, as per claim 11, this claim is the method claim for the apparatus/system claim 5 above, and is rejected for the same reasons provided for the claim 5 rejection, as such; “The method of claim 7 wherein camouflaging the microthread data using the carrier data comprises storing the microthread data in one or more predetermined data frame locations.”

10. Claim 6 *additionally recites* the limitation that; “The system of claim 3 wherein the camouflage system further comprises

a difference system generating camouflaged microthread data by generating two successive sections of carrier data having a difference equal to an integer times the microthread data.”

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 7, lines 4-col. 11, line 38, whereas the watermark generation/camouflaged /insertion (and associated original data content signal modification, such as ‘[the] dividing the signal into portions, such as an array of pixels in an array into sub-arrays ... authentication of a portion of the signal ...’, so as to accommodate the watermarking) and original signal aspects, clearly encompasses the “...difference ... camouflaged ... integer times the microthread data”, as broadly interpreted by the examiner. Further, the use of the phrase “having a difference equal to an integer times”, likewise as broadly interpreted by the examiner, in not specifying what parameters or relative mathematical properties of such parameters a ‘difference’ pertains to, thereby allowing for said broad



interpretation of the reference relative to the watermark/original data relationship.);

Further, as per claim 10, this claim is the method claim for the apparatus/system claim 6 above, and is rejected for the same reasons provided for the claim 6 rejection, as such; “The method of claim 7 wherein camouflaging the microthread data using the carrier data comprises generating two successive sections of carrier data having a difference equal to an integer times the microthread data.”

11. Claim 12 *additionally recites* the limitation that; “The method of claim 7 wherein forming the composite data sequence that includes the carrier data and the camouflaged microthread data comprises:

storing

the microthread data and

locator data in a first data frame location;

using the locator data to determine a second data frame location; and

storing the microthread in the second data frame location.”

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 7, lines 4-col. 11, line 38, whereas the watermark generation/camouflaged /insertion (and associated original data content signal modification, such as ‘[the] dividing the signal into portions, such as an array of pixels in an array into sub-arrays ... authentication of a portion of the signal ...’, so as to accommodate

Art Unit: 2136

the watermarking) and original signal aspects, clearly encompasses the "... composite data sequence ... locator data in a first data frame location ... second ... location", as broadly interpreted by the examiner. Further, the use of the phrase "locator data to determine a second data frame location", likewise as broadly interpreted by the examiner, in not specifying what parameters or relative mathematical properties of such parameters a 'determin[ation]' pertains to, thereby allowing for said broad interpretation of the reference relative to the watermark/original data relationship in the context of the inter (i.e., 1<sup>st</sup>, 2<sup>nd</sup>, sequential, etc.) blocks/frames (i.e., at the very least for the video instances) relative to inserted watermarks.).

12. Claim 13 *additionally recites* the limitation that; "The method of claim 7 wherein forming the composite data sequence that includes the carrier data and the camouflaged microthread data comprises

storing the camouflaged microthread data at one or more predetermined locations based on a predetermined data sequence of the carrier data."

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 7, lines 4-col. 11, line 38, whereas the watermark generation/camouflaged /insertion (and associated original data content signal modification, such as '[the] dividing the signal into portions, such as an array of pixels in an array into sub-arrays ... authentication of a portion of the signal ...', so as to accommodate the watermarking) and original signal aspects, clearly encompasses the "... composite data sequence ... predetermined locations ... predetermined data sequence of the carrier data", as broadly interpreted by the examiner. Further, the use of the phrase "locations based on a

Art Unit: 2136

predetermined data sequence”, likewise as broadly interpreted by the examiner, in not specifying what parameters or relative mathematical properties of such parameters a ‘predetermined’ pertains to, thereby allowing for said broad interpretation of the reference relative to the watermark/original data relationship in the context of the inter (i.e., 1<sup>st</sup>, 2<sup>nd</sup>, sequential, etc.) blocks/frames (i.e., at the very least for the video instances) relative to inserted watermark locations within the content data stream.).

13. Claim 14 *additionally recites* the limitation that; “The method of claim 13 wherein the predetermined data sequence of the carrier data is a predetermined magnitude of change in two successive data values.”

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 7, lines 4-col. 11, line 38, whereas the watermark generation/camouflaged /insertion (and associated original data content signal modification, such as ‘[the] dividing the signal into portions, such as an array of pixels in an array into sub-arrays ... authentication of a portion of the signal ...’, so as to accommodate the watermarking) and original signal aspects, clearly encompasses the “...predetermined ... carrier ... predetermined magnitude of change in two successive data values”, as broadly interpreted by the examiner. Further, the use of the phrase “predetermined magnitude of change in two successive data values”, likewise as broadly interpreted by the examiner, in not specifying what parameters or relative mathematical properties of such parameters a ‘magnitude of change’ pertains to, thereby allowing for said broad interpretation of the reference relative to the watermark/original data relationship in the context of the inter (i.e., 1<sup>st</sup>, 2<sup>nd</sup>, sequential, etc.)

Art Unit: 2136

blocks/frames (i.e., at the very least for the video instances) relative to inserted watermark locations within the content data stream.).

14. As per claim 15, this claim is the “receive and recover/verify” side of the claim 7 “create thread/watermark, insert, transmit” limitations above, and is rejected for the same reasons provided for the claim 7 rejection, as such; “A method for retrieving microthreads from transmitted data comprising:

receiving a composite data sequence that includes

carrier data and

camouflaged microthread data;

locating the camouflaged microthread data using a flag;

extracting the camouflaged microthread data; and

extracting the microthread data from the camouflage.”

15. Claim 16 *additionally recites* the limitation that; “The method of claim 15 further comprising

performing one or more predetermined actions using the microthread data.”

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 9, lines 51-col. 11, line 38, whereas the watermark generation/camouflaged and subsequent recovery via encryption /decryption, and original signal aspects (i.e., such as the whole point of watermarking for copyright/authentication/DRM), clearly encompasses the “... one or more predetermined actions

... microthread data ...”, as broadly interpreted by the examiner.).

16. Claim 17 *additionally recites* the limitation that; “The method of claim 15 wherein locating the camouflaged microthread data using the flag comprises

locating a predetermined characteristic of the carrier data.”

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 9, lines 51-col. 11, line 38, whereas the watermark generation/camouflaged and subsequent recovery via encryption /decryption, and original signal aspects (i.e., such as the whole point of watermarking for copyright/authentication/DRM of the carrier data), clearly encompasses the “... locating ... data ... flag ... locating ... characteristic of the carrier data ...”, as broadly interpreted by the examiner.).

17. Claim 18 *additionally recites* the limitation that; “The method of claim 17 wherein the predetermined characteristic is a change in two successive values of data that exceeds a predetermined amount.”

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 9, lines 51-col. 11, line 38, whereas the watermark generation/camouflaged and subsequent recovery via encryption /decryption, and original signal aspects (i.e., such as the whole point of watermarking for copyright/authentication/DRM of the carrier data), clearly encompasses the “... predetermined ... change in two successive values ... exceeds a predetermined amount ...”, as broadly

Art Unit: 2136

interpreted by the examiner.). Further, the use of the phrase “change in two successive values”, likewise as broadly interpreted by the examiner, in not specifying what parameters or relative mathematical properties of such parameters a ‘change in two successive values’ pertains to, thereby allowing for said broad interpretation of the reference relative to the watermark/original data relationship in the context of the inter (i.e., 1<sup>st</sup>, 2<sup>nd</sup>, sequential, etc.) blocks/frames (i.e., at the very least for the video instances) relative to inserted watermark associated “predetermined characteristic” within the content data stream.).

18. Claim 19 *additionally recites* the limitation that; “The method of claim 17 wherein the predetermined characteristic is a data frame location.”

The teachings of Wolfgang et al are directed towards such limitations (i.e., figures 1-6 and associated descriptions, abstract, col. 1, lines 25-col. 4, line 67, col. 9, lines 51-col. 11, line 38, whereas the watermark generation/camouflaged and subsequent recovery via encryption /decryption, and original signal aspects (i.e., such as the whole point of watermarking for copyright/authentication/DRM of the carrier data), clearly encompasses the “... predetermined ... data frame location ...”, as broadly interpreted by the examiner.). Further, the use of the phrase “data frame location”, likewise as broadly interpreted by the examiner, in not specifying what parameters or relative mathematical properties of such parameters a ‘data frame location’ pertains to, thereby allowing for said broad interpretation of the reference relative to the watermark/original data relationship in the context of the inter (i.e., 1<sup>st</sup>, 2<sup>nd</sup>, sequential, etc.) blocks/frames (i.e., at the very least for the video instances) relative to inserted watermark

Art Unit: 2136

locations within the content data stream.).

19. As per claim 20, this claim is the “receive and recover/verify” side of the claim 9 “create thread/watermark, insert, transmit” limitations above, and is rejected for the same reasons provided for the claim 9 rejection, as such; “The method of claim 15 wherein extracting the microthread data from the camouflage comprises
- performing a mathematical operation on the camouflaged microthread data.”

Art Unit: 2136


***Conclusion***

20. Any inquiry concerning this communication or earlier communications from examiner should be directed to Ronald Baum, whose telephone number is (571) 272-3861, and whose unofficial Fax number is (571) 273-3861. The examiner can normally be reached Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh, can be reached at (571) 272-3795. The Fax number for the organization where this application is assigned is 703-872-9306.

Ronald Baum

Patent Examiner



AYAZ SHEIKH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100